

BIOGRAPHICAL SKETCH

NAME: Nicholas Luke

POSITION TITLE: Mathematician

EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
North Carolina Agricultural and Technical State University	B.S.	2001	Applied Mathematics & Mathematics Education
North Carolina State University	M.S.	2004	Applied Mathematics
North Carolina State University	Ph.D.	2006	Computational Mathematics

PROFESSIONAL EXPERIENCE:

09/06-present Postdoctoral Fellow, Experimental Toxicology Division, National Health and Environmental Effects Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina

08/01-08/06 Graduate Research Assistant, Center for Research in Scientific Computation, North Carolina State University, Raleigh, North Carolina

PROFESSIONAL SOCIETIES:

Society for Industrial and Applied Mathematics
American Mathematical Society

SELECTED AWARDS AND HONORS:

EPA "T" Team Award - 2007
David and Lucille Packard Graduate Scholars Fellowship – 2001-2006
North Carolina Teaching Fellows Scholarship – 1997-2001

ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

Participant, SAMSI Assessment and Utilization of Complex Computer Models:
Biosystems Modeling Workshop

Instructor, Individualized Learning Center, Wake Technical Community College – 2004-2006

Participant, International Workshop on Uncertainty and Variability in Physiologically Based Pharmacokinetic (PBPK) Models, U.S. EPA

ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:

Virtual Liver Team

PUBLICATIONS:

Banks, H.T., and Luke, N.S. Modelling of Propagating Shear Waves in Biotissue Employing an Internal Variable Approach to Dissipation. *Communications in Computational Physics*, vol. 3, no. 3, (2008), 603-640.

Banks, H.T., Luke, N.S., and Samuels Jr., J.R. Viscoelasticity in Polymers: Phenomenological to Molecular Mathematical Modelling. *Numerical Methods for Partial Differential Equations* 23(4), July 2007, p817-831.

Banks, H.T., Furati, K.M., Ito, K., Luke, N.S., and Smith, C.J. Acoustic Attenuation Employing Variable Wall Admittance. *Directions in Mathematical Systems Theory and Optimization*, Springer Berlin: Heidelberg, 2003, p.15-26